

relax and allow us to take contro

Finite Elemente Methode Analysis



By means of FEM-calculation we conduct tension- deformation- and modal analyses for various components. Modal analyses in particular play a key role in the testing industry, because the natural frequency of the component and the testing frequency must not interfere.

Vibrations transmitted into buildings or other components mean a major security risk for people, buildings and machines. To avoid this we use FEM-programs to plan foundations with an ideal spring system and seismic mass for your particular test rig. For this we use the software Nastran for Windows.

The example shown above presents an aluminium vibrating table, which has been analysed concerning its natural frequency and modality with maximum force. The first natural frequeny was required above 100 Hz.

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Example: another vibrating table



Bottom view



Modal analysis: 1st natural frequency 166 Hz

The 1st natural frequency was calculated at 166 Hz. It was ascertained in practice at 165 Hz.



3D-drawing



Modal analyis: 2nd natural frequency 304 Hz



In contrast to the vibrating tables this modal analysis was realised with a model that was captivated in alle 6 degrees of freedom.

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Example: angle plate for 3-axial test rig